Panasonic

ideas for life

PT-LB50 Series

Micro Portable XGA/SVGA LCD Projectors

PT-**LB50NT**EA 2000 lm XGA

PT-**LB50**EA 2000 lm XGA

PT-**LB50S**EA 2000 lm SVGA

Daylight View 2

The World's Fastest Wireless Transmission Projectors

- **Easy wireless projection (PT-LB50NTEA)**
  - World's fastest data transfer*1
  - Wireless PC motion/sound streaming*2
  - Abundant wireless functions, including wireless prompter and 16-window index style
  - Simple, user-friendly settings
- **Daylight View 2 technology**
  - Looks max. 50% brighter*3
  - Vivid colours in a bright room
  - Auto operation with ambient light sensor (ALS)
- **High power and portability**
  - Bright 2,000 lumens
  - Ultra-lightweight: 1.8 kg/1.9 kg (4.0 lbs/4.2 lbs)*4
  - Slim and compact design: 57-mm thickness*5
- **Quick operation**
  - 2-second speed start
  - Auto search
  - Real-time keystone correction
  - Operation assistance
  - Direct power off

*1 As of February 7, 2006, according to our own evaluation of wireless transmission from PC to projector. Wireless projection function is featured on the PT-LB50NTEA only.
*2 Content and DVDs set with DRM (Digital Rights Management) cannot be transmitted.
*3 Comparison with Daylight View 2 turned On and Off, using an 80-inch screen and ordinary meeting room lighting of 400 lux. (Projector: PT-LB50NTEA, screen gain: 2.6)
*4 1.8 kg/4.0 lbs for the PT-LB50EA and PT-LB50SEA; 1.9 kg/4.2 lbs for the PT-LB50NTEA.
*5 Legs and protruding parts not included.

Simple & Flexible Wireless Projection

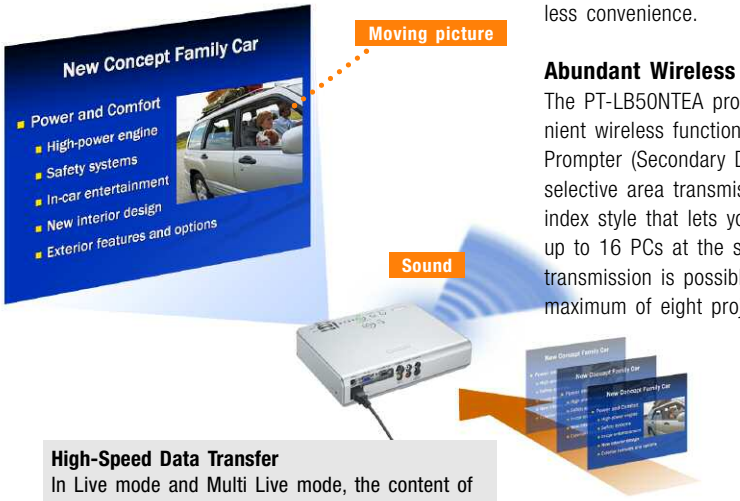
The PT-LB50NTEA features a wireless LAN function. There are no cables to connect other than the power cord, so setup is quick and easy and you have full layout flexibility. Featuring a host of convenient wireless functions, the PT-LB50NTEA enhances the projection applications. In addition, the PT-LB50NTEA, PT-LB50EA and PT-LB50SEA incorporate Panasonic's original Daylight View 2 technology, which makes images easy to see even in brightly lit rooms.

Wireless Manager Control Panel (Launcher)

Easy Wireless Projection (PT-LB50NTEA)

The World's Fastest Data Transfer*1

Boasting wireless data transmission at five times the speed of our conventional model*2, the PT-LB50NTEA provides a smooth display of moving picture files*3 at 30 fps*4.



High-Speed Data Transfer
In Live mode and Multi Live mode, the content of the PC screen is projected with the same smooth image motion as you get with a wired connection.

Wireless PC Motion/Sound Streaming

In addition to the moving pictures, audio data can be sent at the same time, so you can give Microsoft® PowerPoint® presentations rich in moving pictures and sound effects with wireless convenience.

Abundant Wireless Functions

The PT-LB50NTEA provides a host of convenient wireless functions, including Wireless Prompter (Secondary Display Transmission), selective area transmission and 16-window index style that lets you project images from up to 16 PCs at the same time. Wireless transmission is possible from one PC to a maximum of eight projectors at a time.

Set yourself free.

Simple, User-Friendly Operation

The settings for wireless connection can be made quickly and easily using Wireless Manager ME 3.0 software, which installs easily onto a PC using the included CD-ROM. You can also copy Wireless Manager onto a memory card and take it to a presentation site. This gives you wireless projection even where there are no PCs with Wireless Manager ME 3.0*5. When the Wireless Manager ME 3.0 is finished, the PC's LAN settings are restored to their original state, so the PC is ready to reconnect to your company LAN.

Other Wireless Features

- Projector control/status monitoring capability via an Internet browser
- Automatic connection to registered projectors
- The security method complies with WPA-PSK and WPA2-PSK.
- The Advanced Encryption Standard (AES) is used for all communication encryption.
- Wireless shutter function
- One-shot mode
- PowerPoint® page up/down operation using the supplied remote control

A host of convenient wireless functions

Wireless Prompter Function (Secondary Display Transmission)

This allows transmission of content other than what's displayed on your PC. For example, you can display text documents on your PC screen while projecting slide from your Microsoft® PowerPoint® presentation*6. You get a host of other convenient wireless transmission functions too, such as area-specified transmission and a multi-live mode for simultaneous display of up to 16 PCs.

Selective Area Transmission

By using the area select window, you can specify the necessary information alone from the computer screen, and display it on the projection screen.

Multi-Live Mode

• Four-Window Style
The operation is controlled using Wireless Manager ME 3.0.

• Index Style: Four Thumbnails
This style projects images from up to four PCs as small windows along the bottom of the screen.

• Extended Index Style: 16 Thumbnails
This style projects images from up to 16 PCs as small windows. Using the projector's remote control, you can select any one of the index windows and display it on the main window or on a full screen.

Multiple Source Live Mode

You can simultaneously project a single computer's screen on up to eight projectors. This mode is useful when a number of projectors are installed, for example, in a large conference room, or when holding simultaneous presentations in several conference rooms.

Remote control for the PT-LB50NTEA

Remote control for the PT-LB50EA and PT-LB50SEA

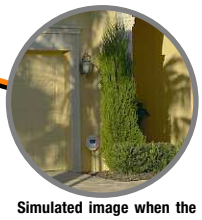
The supplied remote control for the PT-LB50NTEA features wireless projection controls including Microsoft® PowerPoint® page up/down capability.

Daylight View 2 Technology

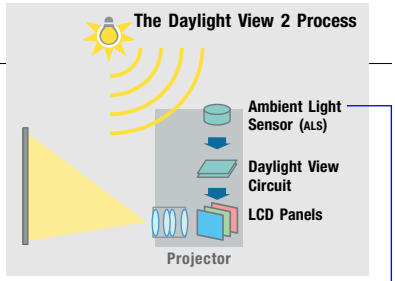
Looks max. 50% brighter

Panasonic's Daylight View 2 technology, which helps project sharp, crisp images that are easy to see even in brightly lit rooms. A built-in sensor measures the ambient light, and the halftone colours and brightness level are adjusted accordingly in real-time. Viewing brightness is increased by as much as 50%*7.

Simulated image when the Daylight View 2 is turned off.



Simulated image when the Daylight View 2 is turned on.



High Power and Portability

Powerful 2,000-Lumen Projectors

Thanks to a high-performance optical system and high-efficiency 165-W UHM™ lamp, the PT-LB50 series projectors deliver super-bright pictures with 2,000 lumens brightness. Sharp, crisp images are easy to see.

Ultra-Lightweight and Compact

At only 1.8 kg/1.9 kg*8, PT-LB50 models won't weigh you down—even when you're carrying with you a laptop. PT-LB50 projectors are 297 mm wide by 210 mm deep—about the size of an A4 sheet of paper—and only 57 mm high. Each slips easily into a bag or briefcase.

Quick Operation

Two-Second Speed Start

With Speed Start, the image appears in about two seconds after you press the power button.

Auto Search

When a source is connected and you switch the unit on, it automatically detects what kind of source is connected and begins projection.

Real-Time Keystone Correction

The projector automatically senses if you adjust its angle (vertical direction) during operation and instantly makes whatever keystone correction is necessary for optimum viewing.

Direct Power Off

You can disconnect the power cable and move the projector as soon as your presentation is finished, because the cooling fan keeps operating until the lamp is cooled.

Other Features

- Operation assistance
- Short-throw zoom lens
- Anti-theft features: User password, control panel lock and text superimposing
- Projector AI
- Index Window
- Auto power off
- Two RGB inputs
- RGB 2 IN can be switched to RGB 1 OUT for loop-through monitoring
- HDTV compatibility
- Full compatibility with sRGB colour space for accurate colour reproduction (in natural mode)
- Picture mode selection (standard/dynamic/natural)
- Blackboard mode allows you to project images onto an ordinary classroom or conference room blackboard
- 3x digital zoom
- Shutter function for image/sound muting
- Selectable 17-language on-screen menu
- Ceiling mountable (option)

Rear view

***1 As of February 7, 2006, according to our own evaluation of wireless transmission from PC to projector.**
***2 PT-LB20NTEA.**
***3 Content and DVDs set with DRM (Digital Rights Management) cannot be transmitted.**
***4 For moving picture files in QVGA size.**
***5 Transmission will be slower and certain functions are not available compared to when using a computer that has the software installed. Also, certain functions may not be available. (Please see operating instruction for details.)**
***6 With Wireless Manager ME 3.0, you can use the projector screen as a secondary monitor for the PC. In this setup, Microsoft® PowerPoint® must be set to "Show Presenter View."**
***7 Comparison with Daylight View 2 turned On and Off, using an 80-inch screen and ordinary meeting room lighting of 400 lux. (Projector: PT-LB50NTEA, screen gain: 2.6)**
***8 1.8 kg for the PT-LB50EA and PT-LB50SEA; 1.9 kg for the PT-LB50NTEA.**

Specifications

Power supply	100–240 V AC, 50/60 Hz
Power consumption	240 W (Approx. 4 W in standby mode with fan stopped)
LCD panel	4:3 aspect ratio
Panel size	0.6″ (15.24 mm) diagonal
Display method	Transparent LCD panel (x 3, R/G/B)
Drive method	Active matrix
Pixels	
PT-LB50NTEA/LB50EA	786,432 (1,024 x 768) x 3,
PT-LB50SEA	total of 2,359,296 pixels 480,000 (800 x 600) x 3, total of 1,440,000 pixels
Pixel configuration	Stripe
Lens	Manual zoom (1:1–1:1.2), manual focus, F 1.6–1.9, f 18.8–22.6 mm
Lamp	165 W UHM™ lamp
Colours	Full colour (16,777,216 colours)
Brightness	2,000 lumens
Contrast	400:1*1 (full on/full off)
Scanning frequency	
RGB	Horizontal: 15–91 kHz, Vertical: 50–85 Hz
$Y P_B P_R$	480i (525i): f_H 15.75 kHz; fv 60 Hz 576i (625i): f_H 15.63 kHz; fv 50 Hz 480p (525p): f_H 31.5 kHz; fv 60 Hz 576p (625p): f_H 31.25 kHz; fv 50 Hz 720p (750p): f_H 45 kHz; fv 60 Hz 1080i (1125i): f_H 33.75 kHz; fv 60 Hz 1080i (1125i): f_H 28.125 kHz; fv 50 Hz
S-Video/Video	NTSC, NTSC4.43, PAL-M, PAL60: f_H 15.75 kHz; fv 60 Hz PAL, SECAM, PAL-N: f_H 15.63 kHz; fv 50 Hz
Projection size	33–300 inches/838–7,620 mm diagonally
Throw distance	
PT-LB50NTEA/LB50EA	1.1 m–11.1 m (3′7″–36′5″)
PT-LB50SEA	1.1 m–10.9 m (3′7″–35′9″)
Optical axis shift	6:1 (fixed)
Keystone correction range	Vertical: ±30°
On-screen menu	17 languages: English, French, German, Spanish, Italian, Korean, Russian, Chinese, Japanese, Swedish, Norwegian, Danish, Portuguese, Polish, Hungarian, Czech, and Thai
Installation	Front/rear ceiling/desk (menu selection)
Built-in speakers	4 x 2 cm x 1 (oval), 1.0 W (monaural) output power
Terminals	
PC 1 IN	D-sub HD 15-pin x 1
RGB signal	R, G, B: 0.7 Vp-p, 75 ohms, Sync on green: 1.0 Vp-p, 75 ohms HD/SYNC, VD: TTL (positive/negative polarity compatible)
$Y P_B P_R$ signal	Y: 1.0 Vp-p (including sync signal), 75 ohms; P_B, P_R: 0.7 Vp-p, 75 ohms
PC 2 IN/PC 1 OUT	D-sub HD 15-pin x 1 (input/output selectable using on-screen menu)
RGB signal	R, G, B: 0.7 Vp-p, 75 ohms, Sync on green: 1.0 Vp-p, 75 ohms HD/SYNC, VD: TTL (positive/negative polarity compatible)
$Y P_B P_R$ signal	Y: 1.0 Vp-p (including sync signal), 75 ohms; P_B, P_R: 0.7 Vp-p, 75 ohms
VIDEO IN	RCA pin x 1, 1.0 Vp-p, 75 ohms
S-VIDEO IN	Mini DIN 4-pin x 1, Y: 1.0 Vp-p, C: 0.286 Vp-p, 75 ohms
AUDIO IN	RCA (L-R) x 1, 0.5 Vrms (for VIDEO/S-VIDEO)
PC AUDIO IN	M3 (stereo) x 1, 0.5 Vrms
AUDIO OUT	M3 (stereo) x 1, 0–2.0 Vrms (variable)
SERIAL	Mini DIN 8-pin x 1 (RS-232C)
Power cord length	2 m (6′7″)
Cabinet material	Moulded material (ABS/PC)
Dimensions*2 (W x H x D)	297 x 57 x 210 mm (11-11/16″ x 2-7/32″ x 8-1/4″)
Weight	
PT-LB50NTEA	1.9 kg (4.2 lbs.)
PT-LB50EA/LB50SEA	1.8 kg (4.0 lbs.)
Operating environment	
Temperature	0°–40°C (32°–104°F)
Humidity	20%–80% (no condensation)
Remote Control Unit	
Power supply	3 V DC (AAA battery x 2)
Operation range*3	Approx. 7 m (23 feet) when operated from directly in front of the signal receptor
Dimensions (W x H x D)	51.5 x 123 x 2.11 mm (2″ x 4-13/16″ x 13/16″)
Weight	74 g (2.6 ozs.) (including batteries)
Wireless LAN (PT-LB50NTEA)	
Standard	IEEE802.11b/g
Modulation	
IEEE802.11b	Direct sequence spread spectrum (DS-SS) system
IEEE802.11g	Orthogonal frequency division multiplex (OFDM) system
Transmission system	
IEEE802.11b	CCK (11/5.5 Mbps), DQPSK (2 Mbps), DBPSK (1 Mbps)
IEEE802.11g	64-QAM (54/48 Mbps), 16-QAM (36/24 Mbps), QPSK (18/12 Mbps), BPSK (9/6 Mbps)
Transmission speed	
IEEE 802.11b	11 Mbps, 5.5 Mbps, 2 Mbps, 1 Mbps
IEEE 802.11g	54 Mbps, 48 Mbps, 36 Mbps, 24 Mbps, 18 Mbps, 12 Mbps, 9 Mbps, 6 Mbps
Operation range*3	Approx. 30 m (98′5″)
Frequency range	2,412 MHz–2,472 MHz
Channels	1–13 ch

Supplied Accessories

- Power cord
- Wireless remote control
- Batteries for remote control
- VGA cable
- Carrying bag
- Wireless Manager ME 3.0 (CD-ROM)*4

Optional Accessories

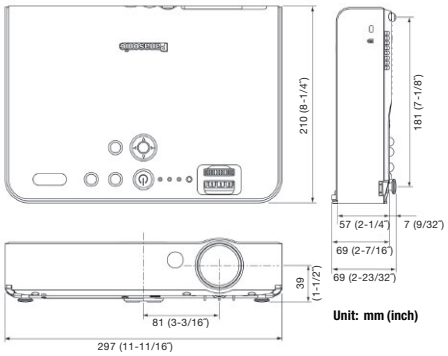
ET-LAB50	Replacement lamp unit
ET-PKB50	Ceiling mount bracket
ET-RM300	Full-function wireless remote control
ET-ADSER	Serial adapter (DIN 8-pin/D-sub 9-pin)

*1: In Al mode.
*2: Legs and protruding parts not included.
*3: Operation range differs depending on the environment.
*4: For the PT-LB50NTEA only.

Optional ceiling mount bracket: ET-PKB50

Optional replacement lamp unit: ET-LAB50

Dimensions



Projection Distance

PT-LB50NTEA/LB50EA

Diagonal image size (4:3 aspect ratio)	Distance to screen (L) min.	recommended*	max.	Height from the edge of screen to center of lens
33″/ 0.84 m / 2.7′	–	–	1.1 m / 3.6′	7 cm / 2.8″
40″/ 1.02 m / 3.3′	1.2 m / 3.9′	1.4 m / 4.6′	1.4 m / 4.6′	8 cm / 3.1″
50″/ 1.27 m / 4.2′	1.6 m / 5.2′	1.8 m / 5.9′	1.8 m / 5.9′	11 cm / 4.3″
60″/ 1.52 m / 4.9′	1.9 m / 6.2′	2.1 m / 6.9′	2.1 m / 6.9′	13 cm / 5.1″
70″/ 1.78 m / 5.8′	2.2 m / 6.9′	2.5 m / 8.2′	2.5 m / 8.2′	15 cm / 5.9″
80″/ 2.03 m / 6.7′	2.5 m / 7.2′	2.9 m / 9.5′	2.9 m / 9.5′	17 cm / 6.7″
90″/ 2.29 m / 7.5′	2.8 m / 8.2′	3.3 m / 10.8′	3.3 m / 10.8′	19 cm / 7.5″
100″/ 2.54 m / 8.3′	3.1 m / 9.2′	3.6 m / 11.8′	3.6 m / 11.8′	21 cm / 8.3″
120″/ 3.05 m / 10.0′	3.7 m / 12.1′	4.4 m / 14.4′	4.4 m / 14.4′	25 cm / 9.8″
150″/ 3.81 m / 12.5′	4.5 m / 14.8′	5.5 m / 18.0′	5.5 m / 18.0′	32 cm / 12.6″
200″/ 5.08 m / 16.7′	6.2 m / 20.3′	7.3 m / 24.0′	7.3 m / 24.0′	42 cm / 16.5″
250″/ 6.35 m / 20.8′	7.7 m / 25.3′	9.2 m / 30.2′	9.2 m / 30.2′	53 cm / 20.9″
300″/ 7.62 m / 25.0′	9.2 m / 30.2′	11.1 m / 36.4′	11.1 m / 36.4′	64 cm / 25.2″

PT-LB50SEA

Diagonal image size (4:3 aspect ratio)	Distance to screen (L) min.	recommended*	max.	Height from the edge of screen to center of lens
33″/ 0.84 m / 2.7′	–	–	1.1 m / 3.6′	7 cm / 2.8″
40″/ 1.02 m / 3.3′	1.2 m / 3.9′	1.4 m / 4.6′	1.4 m / 4.6′	9 cm / 3.5″
50″/ 1.27 m / 4.2′	1.5 m / 4.9′	1.8 m / 5.9′	1.8 m / 5.9′	11 cm / 4.3″
60″/ 1.52 m / 4.9′	1.8 m / 5.9′	2.1 m / 6.9′	2.1 m / 6.9′	13 cm / 5.1″
70″/ 1.78 m / 5.8′	2.1 m / 6.9′	2.5 m / 8.2′	2.5 m / 8.2′	15 cm / 5.9″
80″/ 2.03 m / 6.7′	2.5 m / 8.2′	2.9 m / 9.5′	2.9 m / 9.5′	17 cm / 6.7″
90″/ 2.29 m / 7.5′	2.8 m / 9.2′	3.2 m / 10.5′	3.2 m / 10.5′	20 cm / 7.9″
100″/ 2.54 m / 8.3′	3.1 m / 10.2′	3.6 m / 11.8′	3.6 m / 11.8′	22 cm / 8.7″
120″/ 3.05 m / 10.0′	3.7 m / 12.1′	4.3 m / 14.1′	4.3 m / 14.1′	26 cm / 10.2″
150″/ 3.81 m / 12.5′	4.6 m / 15.1′	5.4 m / 17.7′	5.4 m / 17.7′	33 cm / 12.9″
200″/ 5.08 m / 16.7′	6.1 m / 20.0′	7.3 m / 24.0′	7.3 m / 24.0′	43 cm / 16.9″
250″/ 6.35 m / 20.8′	7.6 m / 24.9′	9.1 m / 29.9′	9.1 m / 29.9′	54 cm / 21.3″
300″/ 7.62 m / 25.0′	9.1 m / 29.9′	10.9 m / 35.8′	10.9 m / 35.8′	65 cm / 25.6″

NOTES ON USE

- The projector uses a high-voltage mercury lamp that contains high internal pressure. This lamp may break, emitting a large sound, or fail to illuminate, due to impact or extended use. The length of time that it takes for the lamp to break or fail to illuminate varies greatly depending on individual lamp characteristics and usage conditions.
- The brightness of the lamp will gradually decrease with use.
- The lamp, LCD panel, polarising plate, and polarising beam splitter (PBS) are consumable parts. These parts may need to be replaced during the guarantee period if the projector is used for six or more hours per day.
- The replacement cycle of the LCD panel, polarising plate, and polarising beam splitter (PBS) will be shortened if the projector is subjected to continuous use for six or more hours. Likewise, the replacement cycle of the lamp will be shortened if the power is frequently turned on and off or the projector is subjected to continuous use for 10 or more hours.
- Interruptions may occur in the wireless connection due to signal interference or PC conditions.

To use wireless functions, a PC is required that meets the conditions given below:

OS:	**Microsoft® Windows® 2000 Professional, Windows® XP Professional, Windows® XP Home Edition**
CPU:	**Pentium® III or higher, or other compatible processor (1 GHz or higher is recommended).**
Memory:	**256 MB or more**
Free hard disk space:	**60 MB or more**
CD-ROM drive:	**CD-ROM drive or DVD drive**
Wireless LAN:	**IEEE 802.11b/g compatible (built-in wireless LAN system or external IEEE 802.11b/g LAN card must be installed and running normally.) However, some IEEE 802.11g/b wireless LAN may not allow connection to the projector.**
Web browser:	**Internet Explorer 6.0 or later, Netscape Communicator 7.0 or later**
Direct X:	**DirectX® 8.1b or later must be installed.**

Operation is not guaranteed for all computers that meet the above conditions.

Ecology-Conscious Design

Panasonic works from every angle to minimise environmental impact in the product design, production and delivery processes, and in the performance of the product itself over its life cycle. The PT-LB50 Series reflects the following ecological considerations.

- **Lead-free solder is used to mount components to the printed circuit boards.**
- **No halogenated flame retardants are used in the cabinet.**
- **No styrofoam is used in the packing materials.**
- **Lead-free glass is used for the lens.**
- **The packing case and operating manual are made from recycled paper.**

Panasonic

Weights and dimensions shown are approximate. Specifications are subject to change without notice. Product availability differs depending on region and country. This product may be subject to export control regulations. UHM is a trademark of Matsushita Electric Industrial Co., Ltd. VGA and XGA are trademarks of International Business Machines Corporation. Windows and PowerPoint are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. All other trademarks are the property of their respective trademark owners. Projection images simulated.

PT-LB50EA-06APR50K Printed in Japan.